

REMARKS/ARGUMENTS

No claims are amended herein. Claims 1-7 and 30-35 remain pending and stand rejected.

In the November 18, 2009 office action, the Examiner maintained the rejections made in the previous office action, despite the arguments made by Applicants in the response filed August 4, 2009. The Examiner responded to Applicants by arguing that Lenchik in fact teaches multiple sensors detecting one magnet, citing FIG. 10, and Col. 5, Lines 38-49. Applicants strenuously disagree, since it is clear that Lenchik merely teaches one magnet per Hall-effect sensor.

One significant flaw in the Examiner's reasoning is the comparison of element 903 in Lenchik, which is described as a connector element, to the magnet recited in the present claims. This is clearly erroneous, since the connector element 903 of Lenchik is in no way described in such a way that one in ordinary skill in the art would interpret that substituting a magnet for connector element 903 would be possible. On the contrary, if connector element 903 were magnetic, then the magnet-and-Hall-effect sensor embodiments of the position sensors described with reference to FIG. 13 would not function. As clearly shown in FIG. 10 and the related description, Lenchik describes an electronic device with two portions 104, 106 that rotate about axes defined by either end of connector element 903. Connector element 903 is clearly a structural element that connects portions 104 and 106 of the electronic device, and enables the two portions to rotate, each with respect to the connector element. Because *each portion 104 and 106* rotate with respect to the connector

element (that is, at *two locations*), there are provided *two fixed elements that each contain positional sensor devices*. The types of devices are described individually with respect to FIGS. 11-13, but it is clear that each of FIGS. 11-13 describe one of a PAIR of position sensor devices corresponding to the TWO fixed elements 909 at either end of connector element 903. It is incomprehensible how one of ordinary skill in the art could read Lenchik and come to the conclusion that the two fixed elements 909 could comprise two Hall-effect sensors sharing *one magnet*. Col. 5, Line 59 to Col 6, Line 35 of Lenchik clearly describes *each fixed element 909* as comprising a contact that bridges pairs of corresponding contacts (FIG. 11), a variable resistor (FIG. 12), or a magnet and Hall-effect sensor (FIG. 13). The two fixed elements 909 could no more share a single magnet between two Hall-effect sensors, than they could somehow share a single variable resistive device in the embodiment of FIG. 12, or a single “bridge contact” 1128 in the embodiment of FIG. 11. The Examiner is kindly requested to very carefully reconsider his position and more clearly state how the *pairs of position sensors* described in Lenchik corresponds to a single magnet being sensed by two or more Hall-effect sensors as in embodiments of the present invention. Applicants strongly believe that Lenchik simply does not teach the feature upon which the Examiner relies. That is, Lenchik fails to teach or describe “at least one magnet fixed within the mobile terminal and a plurality of sensors for detecting *the magnet* in order to detect the direction in which the mobile terminal is turned”.

Turning to the individual rejections, the Examiner rejected claims 1, 3, 4, and 30 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,658,272 to Lenchik et al. (hereinafter ‘Lenchik’). Applicants respectfully traverse the rejection as

discussed above since Lenchik clearly fails to teach or suggest each element of claims 1, 3, 4 and 30.

The Examiner cites elements of the joint 112 as describing “a direction detecting section comprising at least one magnet fixed within the mobile terminal and a plurality of sensors for detecting the magnet in order to detect the direction in which the mobile terminal is turned and generating a first direction detecting signal, a second direction detecting signal, a third direction detecting signal, and a fourth direction detecting signal.” More specifically, the Examiner presumably refers to position sensors 1035 (see FIG. 10) as the claimed “plurality of sensors”, and connector element 903 as the “at least one magnet fixed within the mobile terminal.” Clearly, the element 903 is not described as a magnet. However, the Examiner also cites FIG. 13 and the corresponding text as describing a magnet.

FIGs 11-13 describe different embodiments of position sensors for use in the joint 112 of Lenchik. FIG. 13 corresponds to a magnet and Hall Effect sensor embodiment. However, it is clear that Lenchik describes each Hall Effect sensor as working in connection with a corresponding magnet to produce an electrical signal that a corresponding position sensor can use to determine a relative position. However, Lenchik clearly fails to teach or suggest a plurality of sensors for detecting a particular magnet, as recited in independent claims 1, 4, and 30. In embodiments of the present invention, one magnet is detected by a plurality of sensors in order to determine relative position, unlike Lenchik, which requires a separate magnet and Hall Effect sensor for each position sensor. Accordingly, since Lenchik fails to teach or describe “a plurality of sensors for detecting the magnet” the rejection of

Response filed January 15, 2010
Responding to office action mailed November 18, 2009
App. Ser. No. 10/813,280

independent claims 1, 4 and 30 must be withdrawn. Claim 3 depends from claim 1 and is allowable at least for the reasons discussed above.

The Examiner's reasoning with respect to Lenchik is repeated in the remaining rejections of claims 2, 5-7, and 31-35. Independent claims 6 and 33 also include the recitation: "a plurality of sensors for detecting the magnet." Accordingly, the Examiner's reasoning is flawed with respect to the remaining claims for the same reasons discussed above, regardless of what the Examiner relies on the secondary references as teaching. Accordingly each of the remaining rejections must be withdrawn, since Lenchik is relied on, and at least fails to teach or suggest "a plurality of sensors for detecting the magnet."

In view of the above, it is believed that the application is in condition for allowance and notice to this effect is respectfully requested. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the telephone number indicated below.

Respectfully Submitted,


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Dated: January 15, 2010